

REMARKS

In the Office Action dated October 18, 2007, claims 1-5, 7-11 and 13-15 were rejected under 35 U.S.C. §102(b) as being anticipated by Yuan et al. Applicants note with appreciation that claims 17, 19 and 21 were allowed.

Claim 1 has been cancelled, and the rejection of claims 2-5, 7-11 and 13-15 is respectfully traversed for the following reasons.

In substantiating the anticipation rejection based on Yuan et al. of each of independent claims 2, 5, 7, 9, 10, 13 and 15, the Examiner identified a significant amount of the claim language in each of those independent claims as allegedly being inherent in the Yuan et al. disclosure, but the Examiner did not provide any information as to what evidence, if any, the Examiner believes is provided in the Yuan et al. disclosure to justify the conclusion of this claim language as being inherent in the Yuan et al. disclosure.

Although the language the Examiner considers to be inherent in the Yuan et al. disclosure is slightly different for each of the independent claims, each of those independent claims has in common the requirement that the polarity, magnetization component or magnetization vector (as variously stated in the respective independent claims), of the permanent magnets must be opposite to each other, i.e., the two permanent magnets are in an anti-parallel arrangement with regard to their respective magnetization directions. Applicants are unable to find any disclosure on this point whatsoever in the Yuan et al. reference, and therefore the Examiner, Applicants, and those of ordinary skill in the relevant technology, are simply left to speculate as to whether such anti-parallelism of the permanent magnets in the Yuan et al. disclosure does or does not exist. In fact, Applicants believe that in order for

the Yuan et al. had to operate as intended, it is more likely that the polarities of the two permanent magnets 222 and 224 in Figure 2 of the Yuan et al. reference must have the same, or substantially the same, magnetization directions.

As stated by the Court of Customs and Patent Appeals more than 60 years ago:

Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

Hansgrig v. Kimmer, 102 F.2d 212, 40 U.S.P.Q.2d 665 (CCPA 1939).

This statement has been cited and relied upon in hundreds of subsequent decisions, other examples being *In re Oelrich*, 666 F.2d 578, 581, 212 U.S.P.Q. 323, 326 (CCPA 1981) and *In re Robertson*, 169 F.3d 743, 49 U.S.P.Q.2d 1949 (Fed. Cir. 1999).

Consistently, the Federal Circuit more recently stated in *Akamai Technologies, Inc. v. Cable & Wireless Internet Services, Inc.*, 344 F.3d 1186, 68 U.S.P.Q.2d 1186 (Fed. Cir. 2003):

A claim limitation is inherent in the prior art if it is necessarily present in the prior art, not merely probably or possibly present.

In the same Decision, the Federal Circuit stated

The dispositive question regarding anticipation is whether one skilled in the art would reasonably understand or infer from the prior art references' teaching that every claim [limitation] was disclosed in that single reference. *Dayco Products, Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1368 (Fed. Cir. 2003).

Applicants submit that the complete silence in the Yuan et al. reference as to the polarities associated with the permanent magnets 222 and 224 in Figure 2 of that reference is sufficient, by itself, to preclude the Examiner from finding that claim limitation to be present in the Yuan et al. disclosure on the basis of inherency. Apart

from this, however, there are statements in the Yuan et al. reference would cause a person of ordinary skill in the field of magnetic head design to either conclude that the magnets 222 and 224 do not have anti-parallel magnetizations, or at least would cause such a person of ordinary skill to realize that such anti-parallel magnetizations clearly must not *necessarily* be present in the Yuan et al. disclosure.

The lack of an inherent disclosure in the Yuan et al. reference of the permanent magnets in the structure disclosed therein having anti-parallel (opposite) magnetization directions is, by itself, sufficient to preclude the Yuan et al. reference from anticipating any of claims 1-5, 7-11 or 13-15. Several of the independent claims, however, include additional limitations that are not disclosed in the Yuan et al. reference.

For example, independent claim 2 originally stated that there is no open space between the permanent magnets in each pair. This has now been amended to state that there is no separation between the permanent magnets in each pair. By contrast, in the Yuan et al. reference, as shown in Figure 2, the magnets 222 and 224 are not only separated by spacers 228 and 229, but also by the GMR element 223.

Moreover, each of the independent claims, including the allowed claims, has been editorially amended to make clear that the claimed element is a write element. Although the head disclosed in the Yuan et al. reference is referred to as a read-write head, and a writing operation is generally described, for example, at column 6, in the paragraph beginning at line 1, there is no disclosure in the Yuan et al. reference as to the interaction, if any, of a write current with the magnetic fields generated by the permanent magnets. In the write mode of the device disclosed in

the Yuan et al. reference, it is stated that the GMR sensor operates in Cpp mode, and it is stated that the pole members act as write poles, but the term “pole members” is not used elsewhere in the Yuan et al. reference and thus there is no identification as to exactly what structure constitutes the “pole members.” Although a person of ordinary skill in the field in write head design might speculate that the “pole members” at least include a portion of the permanent magnets, this is not necessarily the case and certainly there is no explicit description on this point in the Yuan et al. reference. Applicants therefore submit a person of ordinary skill is left to speculate as to how the Yuan et al. head actually functions in the write mode.

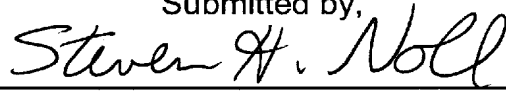
For all of the above reasons, therefore, Applicants submit that the Yuan et al. reference does not disclose all of the elements of claims 1-5, 7-11 and 13-15, and therefore does not anticipate any of those claims. All of those claims are therefore submitted to be in condition for allowance, in addition to the already-allowed claims.

Moreover, in the previous Office Action dated August 8, 2007, wherein the election of species requirement was imposed, the Examiner acknowledged that claim 2 is a generic claim covering both species. If the Examiner agrees that claim 2 is in condition for allowance, then the election of species requirement should be withdrawn, and all claims of the application should be allowed.

Early reconsideration of the application is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required, or to credit any overpayment to account No. 501519.

Submitted by,



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